

Guide to  
TWENTY-FIFTH ANNUAL FIELD CONFERENCE  
of the Section of  
GEOLOGY  
OHIO ACADEMY OF SCIENCE

GLACIAL GEOLOGY OF WEST CENTRAL OHIO

April 29, 1950      Richard P. Goldthwait

TIME:            8 a.m. to 5 p.m., Saturday, April 29, 1950

MEET:            with a FULL TANK OF GAS at front steps of Orton Hall, stone building with round bell tower, South Oval street (which is westward extension of 15th Avenue), Ohio State University

General Route: westward through West Jefferson, Mechanicsburg, and Urbana, then in the afternoon southward through St. Paris and Springfield.

Lunch:            at 12 to 1 p.m., at Roadside Park on Routes 29 and 36, just east of Urbana. BRING YOUR OWN LUNCH.

Ending:            probably 5 p.m. in Courtsville near Solma, Ohio, on Route 42, from which you can reach -

Alliance by driving 179 miles northeast on 42, 142, 40, 62.  
Athens by driving 119 miles southeast on 42, 70, 35, and 50.  
Cincinnati by driving 67 miles southwest on 42  
Columbus by driving 40 miles northeast on 42, 142, and 40.  
Delaware by driving 54 miles northeast on 42.  
Oxford by driving 68 miles southwest on 42 and 73.  
Wooster by driving 134 miles northeast on 42 and 30.

Drivers:            to expedite the trip please

1. Watch the car behind you: stop, or slow down if he is stopped by traffic.
2. After passing towns with lights and turns caravan will pause momentarily to allow all to catch up.
3. Notify the car in front of you if you intentionally leave the party.
4. Speed 45-50 on open highway, less elsewhere.
5. Continue on each road or highway until directions specify turn onto a new road.

Maps:            U.S.G.S. quadrangles and stops located therein.

West Columbus - no stop	St. Paris - stops H, I, J
London - stop A, only	Springfield - stop K
Milford Center - stop B only	
Mechanicsburg - stops C,D,E,F,G	S.Charleston - stop L and moraines crossed on return (?)

# ITINERARY

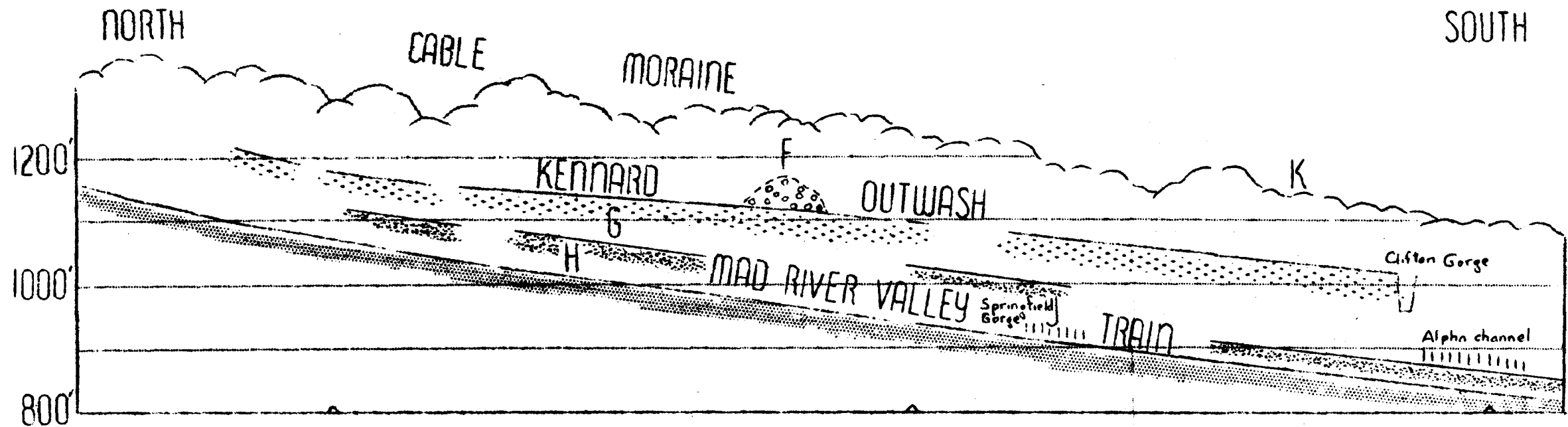
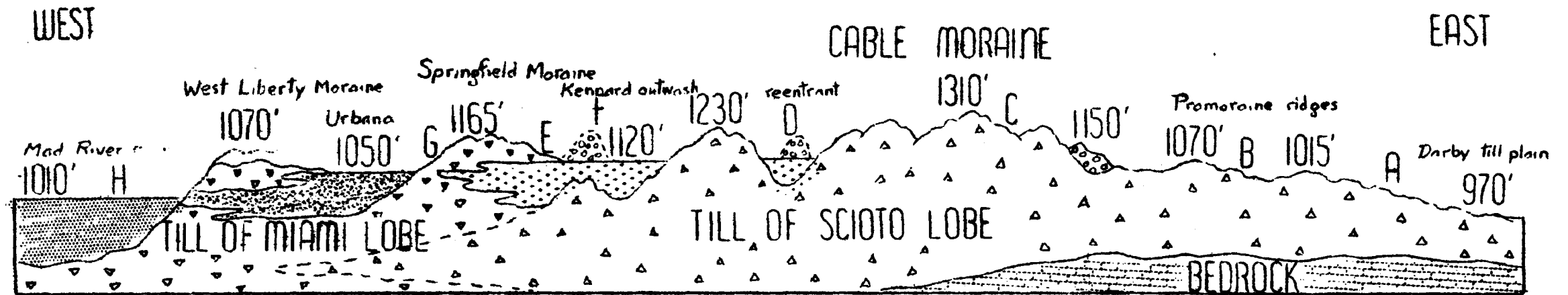
<u>Mileage</u>	<u>Time</u>	<u>Feature</u>
0	8:00	START, Orton Hall, Ohio State University - go north then west on 19th Ave. for 1.6 miles
1.6		L on Lane Ave. for 3.2 mi. on Olentangy till plain
4.8		jog south L on Route 33 and west R on Trabue Rd. 4.2 mi. rising onto Darby till plain which <u>sloped</u> initially eastward determining course of Scioto River.
9.0		south L on Rome-Hilliards Rd. for 2.1 mi. across smooth Darby till plain; rare boulders
11.1		west R on Route 40 for 8.6 mi. past till cuts at Darby Creek, through Alton, and across gravel valley train in West Jefferson
19.7		northwest R on Route 29 for 5.1 mi. passing to undulating pro-morainal till plain in 1.4 miles and passing kettle-like depressions in till 3.2
24.8	8:54	STOP A: Gravel pit in Little Darby Creek valley train on high abandoned channel . Continue west 4.4 mi. past crest of promoraine ridge and Route 38 at 2.0 mi. into an area of more boulders and kettle-like depressions
29.2	9:18	STOP B: Mastodon excavation on Orleton Farms in kettle-like depression: pro-moraine features continue west on 29 for 6.4 mi. over second pro-moraine ridge in 1.4 mi.; Cable Moraine rises steeply on L
35.8		enter Mechanicsburg, rising onto Cable Moraine 0.3 mi., and turn north R on Park Ave at Schio Station near west edge of town for 1.7 mi.; road dips into kettled area and rises along one of the moraine crests.
37.8		turn west L on Route 161 from stop sign for 0.6 mi.
38.4	9:41	STOP C: Till in road cut and view of Cable Moraine crests; nature of moraine deposition continue west 1.3 mi. on 161 noting more boulders after 0.9 mi.
39.7		turn south L on dirt road, Yankee Hill Drive, along a crest of the end moraine 0.7 mi.
40.4		turn west R on Route 29 for 0.7 mi. then south L again on Route 56 for 2.3 mi. dripping into East Fork reentrant through the Cable Moraine in 1.9 mi.
43.4		turn east L on Route 4 for 0.6 mi.
44.0	10:17	STOP D: slumped face of high kame near limit of Kennard high outwash; ice edge relationships; young cemented gravels. turn around at Hawk Road corner just east and travel back southwest 3.7 mi. on Route 4 along Mad River valley train.
47.7		turn west R on Route 54 for 5.2 mi. noting coarse gravel of high outwash on right just after turn and Mad River valley train of Buck Creek with muck soil at 1.3 mi. Route then zigzags along section lines passing kettle holes in 3.5 mi. and rising onto undulating low end moraine at 4.7 mi.
52.9	10:52	turn east R off Route 54 on Pisgah Road and STOP E: old pit by pond in meadow showing till of Springfield end moraine over gravel of high outwash. continue east on Pisgah Rd. 0.4 mi. only.
53.3		turn north L on Three Mile Rd. for 1.1 mi, then turn right on private lane.
54.5	11:17	STOP F: pit in high moulin kame with undulating Springfield end moraine over gravel west of it, exposed Kennard high outwash east, and Cable Moraine clearly visible east: date of formation? which ice? return to Three Mile Rd. turn north R again for 1.1 mi
55.6		turn west L on Route 29 for 1.8 mi. past kettles.
57.4	12:00	LUNCH at roadside park on south L side of road. <u>One Hour</u> . continue west on Route 29 for 0.3 mile only
57.7	1:03	turn east R at stop sign on Route 36 for 0.4 mi. to STOP G: pit in west edge of kame moraine showing kame structure; location of ice?; Urbana intermediate outwash below. turn around, west on route 36 straight through Urbana on the intermediate outwash level for 2.3 mi.

<u>Mileage</u>	<u>Time</u>	<u>Feature</u>
60.0		turn north R. on Route 29 in west edge of Urbana for 1.4 mi. climbing onto gentle slope of a segment of West Liberty end moraine in 0.9 mi. Note black soils on outwash to east R.
61.4		turn west L on Millerstown Road for 1.5 mi. across West Liberty moraine crest in 0.4 mi. and onto Mad River valley train at 0.8 mi.
62.9	1:32	STOP H: roadside ditch exposing prairie-bog soils (alkaline) over valley train gravels: origin of valley during glaciation; unusual drainage conditions. continue straight west 4.9 mi. across Mad River in 0.7 mi., joining Route 560 and climbing onto undulating and dissected Nettle till plain in 1.9 mi., leaving Route 560 at 1.2 mi. further.
67.8		turn northwest R road skirting Mad River valley train of Nettle Creek for 2.5 mi. Note cuts of till right, and some boulders
70.3		entering Millerstown bear west L one block, north, R one block and turn west L out of the village for 0.4 miles.
70.8		turn north R then bear northwest L at fork out of Nettle Valley 1.4 mi. Note many boulders.
72.2	2:12	STOP I: Farmersville boulder belt concentration of boulders in ravine. turn around and go back southeast only 0.7 mi.
72.9		turn west R on dirt road for 1.3 mi. across valley train and under high railroad
74.2	2:38	STOP J: pit in kames at head of valley train: position of ice edges; Crigin of through valley. continue west 0.8 mile up onto Farmersville boulder belt.
75.0		turn south L at road end leaving boulder belt in 1.2 mi. and reaching St. Paris in 2.2 mi.
77.2		turn east L in St. Paris on Route 36. Follow it 6.8 miles across Nettle till plain. Descend to valley train between 3.5 and 5.9 miles.
84.0		turn south R at Westville on Route 560 down Mad River valley train for 13.2 miles. Note Mad River valley train from Nettle Creek entering from the west R only 2.7 miles along and beyond it the many fans sloping gently into the main valley. Pass across Route 55 and through Tremont.
97.2		turn west R on Route 40 in the edge of Springfield for 0.1 mi. only then south L through the arch into Masonic Home, between buildings and to cemetary south.
98.2	3:58	STOP K: outlook over bedrock gorge which controlled valley trains; date of gorge and valley cutting loop back north to Route 40 in 0.9 mile.
98.7		turn right on Route 40 and continue straight into Springfield
100.4		1.7 mi. leaving Route 40 turn south R after 9 blocks just over second railroad crossing for 0.4 mi.
100.8		turn east L after 5 blocks, onto Pleasant St. for 1.0 mi.
101.8		turn south R on Route 72 at light 5 blocks beyond railroad overpass for 1.9 mi.
103.7		turn east L on Leffels Rd. (Sohio Station) and continue 1.3 mi. across undulating end moraine
105.0		turn south R on Selma Pike. Follow it south 8.1 mi. passing Springfield Moraine on the left, crossing the lower end of the high outwash from 2.4 to 3.2 mi. along, rising over the easternmost Miami lobe moraine from 3.3 to 4.4 miles along. After crossing till plain and another low moraine you climb into the Xenia Moraine at 7.0
113.1	4:48	STOP L: knot of moraine at Courtsville where Scioto and Miami lobe ice seem to have joined.

If you go home by Route 42 northeast from Selma to London you will rise ~~across~~ low separated moraine "fingers" extending south from Cable Moraine as follows:

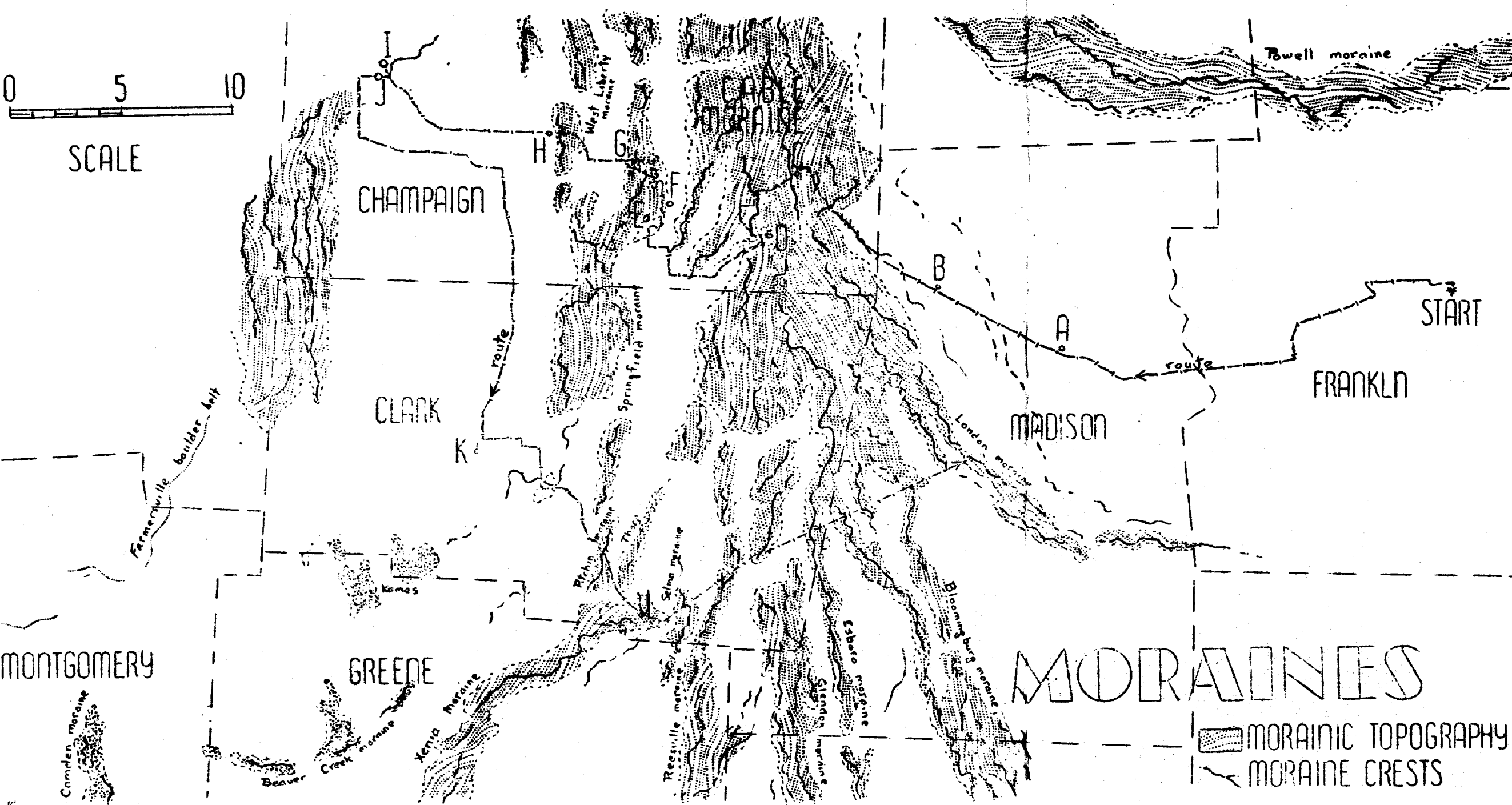
	Selma Moraine at 1.2 to 2.2 miles
	Reosville Moraine at 3.8 to 5.3 miles, and right onto
	Glendon Moraine at 5.8 to 7.1 miles
	Esboro Moraine at 8.7 to 9.2 miles
Bloomingsburg	outer Moraine at 9.8 to 10.6 miles
"	middle Moraine at 11.2 to 11.6 miles
"	inner Moraine at 13.1 to 14.0 miles
London	outer Moraine at 15.9 going into London

# SKETCHED SECTIONS





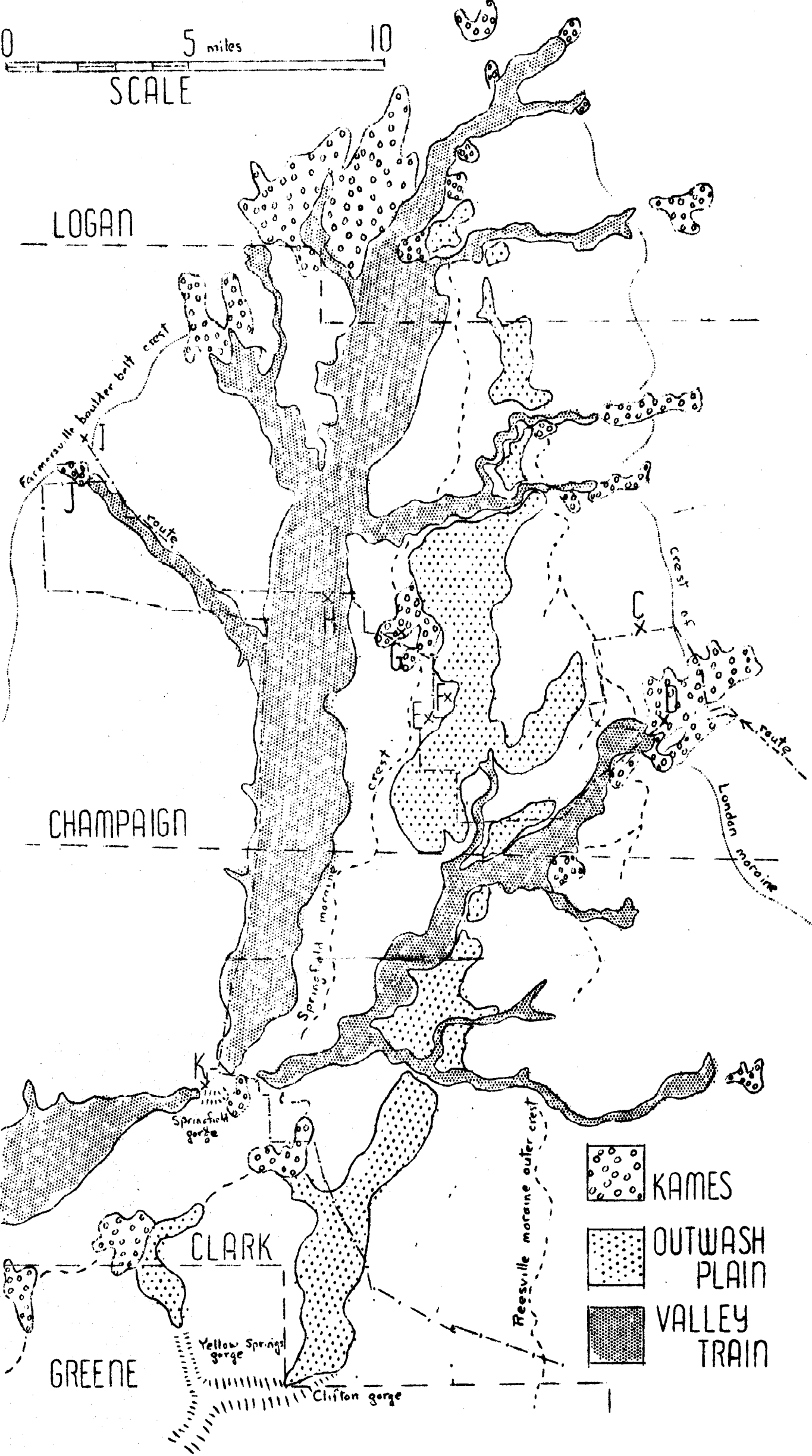
SCALE



# MORAINES

- MORAINIC TOPOGRAPHY
- MORaine CRESTS

# WASHED DEPOSITS



# BOULDERS

○ MANY  
• FEW

complete for named counties only

